

Greening the Garden State

New Jersey's ambitious Clean Energy Program is a model for the nation.

By Jeanne M. Fox

When one considers robust solar energy markets across the country, New Jersey may not be the first state that comes to mind. However, as the federal government drags its heels about the best way to leverage renewable energy sources, the New Jersey Board of Public Utilities (BPU) has quietly developed one of the leading solar energy programs in the nation.



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For the past several years, New Jersey's Clean Energy Program (NJCEP) has pursued aggressive strategies that promote reliable, clean and renewable sources of energy. Using an integrated suite of incentives, from rebates that save up to 60 percent off the cost of installing a solar electric system to low-interest loans for businesses and schools, the Clean Energy Program is giving New Jersey the power to save. Each year, the NJCEP provides nearly \$145 million in financial incentives to residential customers, businesses, schools and municipalities that install energy-efficient and renewable energy technologies.

If you add up the full suite of incentives, rebates and sources of revenue, the average payback period for a 10-kilowatt solar electric system in New Jersey is five to seven years.

Solar Tags Support an Aggressive RPS

How did we do it? In developing the Clean Energy Program, the BPU first formed an advisory body of industry stakeholders, environmentalists and consumer advocates. These stakeholders helped the BPU establish goals, including an aggressive renewable portfolio standard (RPS) to expand the growth of renewable energy. The result was an RPS that required each electricity provider to include in its portfolio an increasing percentage of electricity generated from renewable sources and called for a set-aside of at least 0.16 percent (approximately 90 megawatts) of retail electricity for solar-electric generation by 2008.

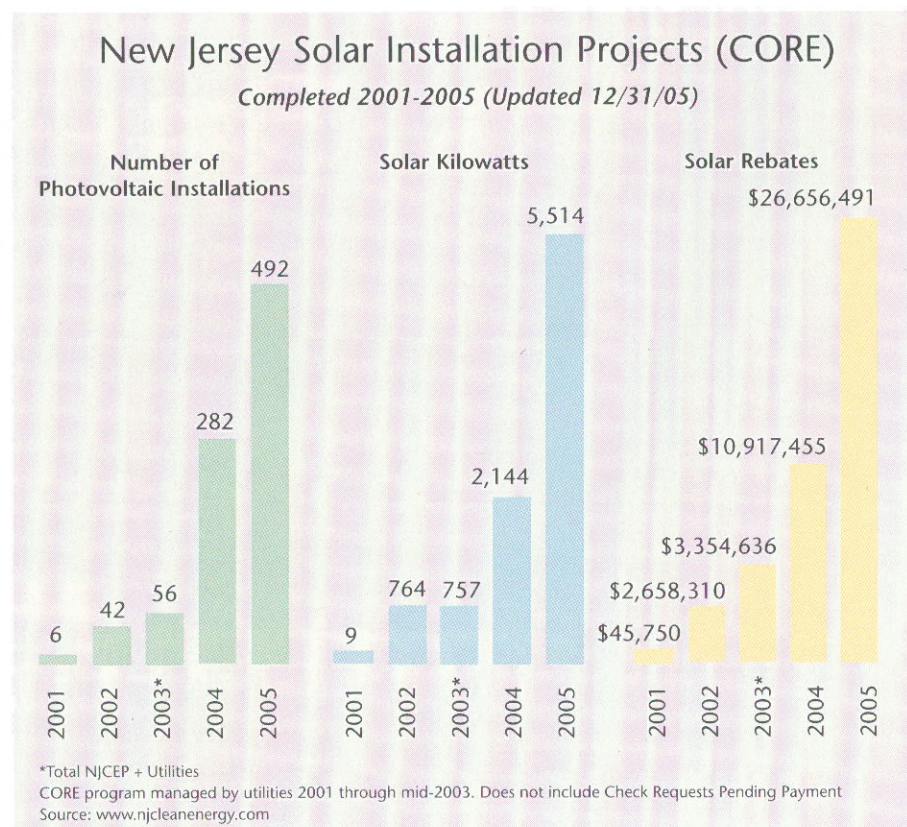
To facilitate compliance with the solar percentage requirement in the RPS, New Jersey was the first state to establish an active Solar Renewable Energy Certificates (SRECs) trading system. The basis of

the system, an SREC ("solar tag") represents the attributes of 1 megawatt-hour (MWh) of solar-electric generation from a photovoltaic system connected to the local distribution grid. When a PV system generates 1 MWh of electricity, an SREC is issued, which can be sold or traded separately from the power. All electric suppliers in New Jersey are required to use this program to demonstrate compliance with the solar set-aside portion of the state's RPS.

The SREC program is designed to compensate system owners at a rate of approximately \$150 to \$250 per megawatt-hour generated, with prices adjusted based on supply and demand for SRECs. Over time we expect that market value of SRECs will be the primary means of financing new solar electric systems, reducing the need for solar rebates.

In addition to the RPS mandates, New Jersey established interconnection and net-metering standards to ensure that solar technologies were fully integrated and compensated. To encourage large commercial system investments, New Jersey allows customer-sited renewable energy systems up to 2 megawatts to interconnect with the electric distribution grid.

New Jersey also has launched incentive packages that reduce financial barriers for customers interested in renewable technologies. One example is the Customer On-Site Renewable Energy (CORE) rebate



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program, through which rebates are available to residential and business customers to help reduce the initial cost of installing a renewable generation system. These incentives are calculated based on the size of the system.

If you add up the full suite of incentives, rebates and sources of revenue, the average payback period for a 10-kilowatt solar electric system in New Jersey is five to seven years. Even our nation's sunnier states will have a tough time topping financial returns like these.

Moving Toward 20% RE by 2020

It is easy to see how important effective market regulations and innovative market incentives are to solar's success in New

Jersey. In 2001 there were just six solar electric systems installed in the state. Today, solar electric systems at more than 1,000 homes, businesses, schools and municipal buildings are generating electricity from the sun. This nearly exponential growth over the past four years has led to hundreds of new jobs and millions of kilowatt-hours per year of solar energy.


But the BPU is not resting on its laurels. New Jersey residents have a new way to support the development of clean, renewable sources of energy: The Clean Power Choice Program. This voluntary program enables retail customers to select renewable energy through a signup option on their utility bills or by visiting www.njcleanpower.com. The program

began in October, with statewide rollout planned for April.

For a slight premium (\$7 to \$20 per month), an electric customer can select from clean power products and marketers, without having to switch his supplier.

Through the creation of an RPS with a specific solar set-aside and a powerful incentive program to support it, New Jersey has emerged as a national leader in solar and energy efficiency. Add premier net-metering and interconnection rules, as well as the nation's most active solar REC-trading program, and you have a Garden State boom in the solar industry. What's more, New Jersey is on its way to generating 20 percent of its energy from renewable resources by 2020, helping to stabilize energy costs, reduce customer bills, improve air quality, create jobs and reduce our dependence on foreign fuels. ●

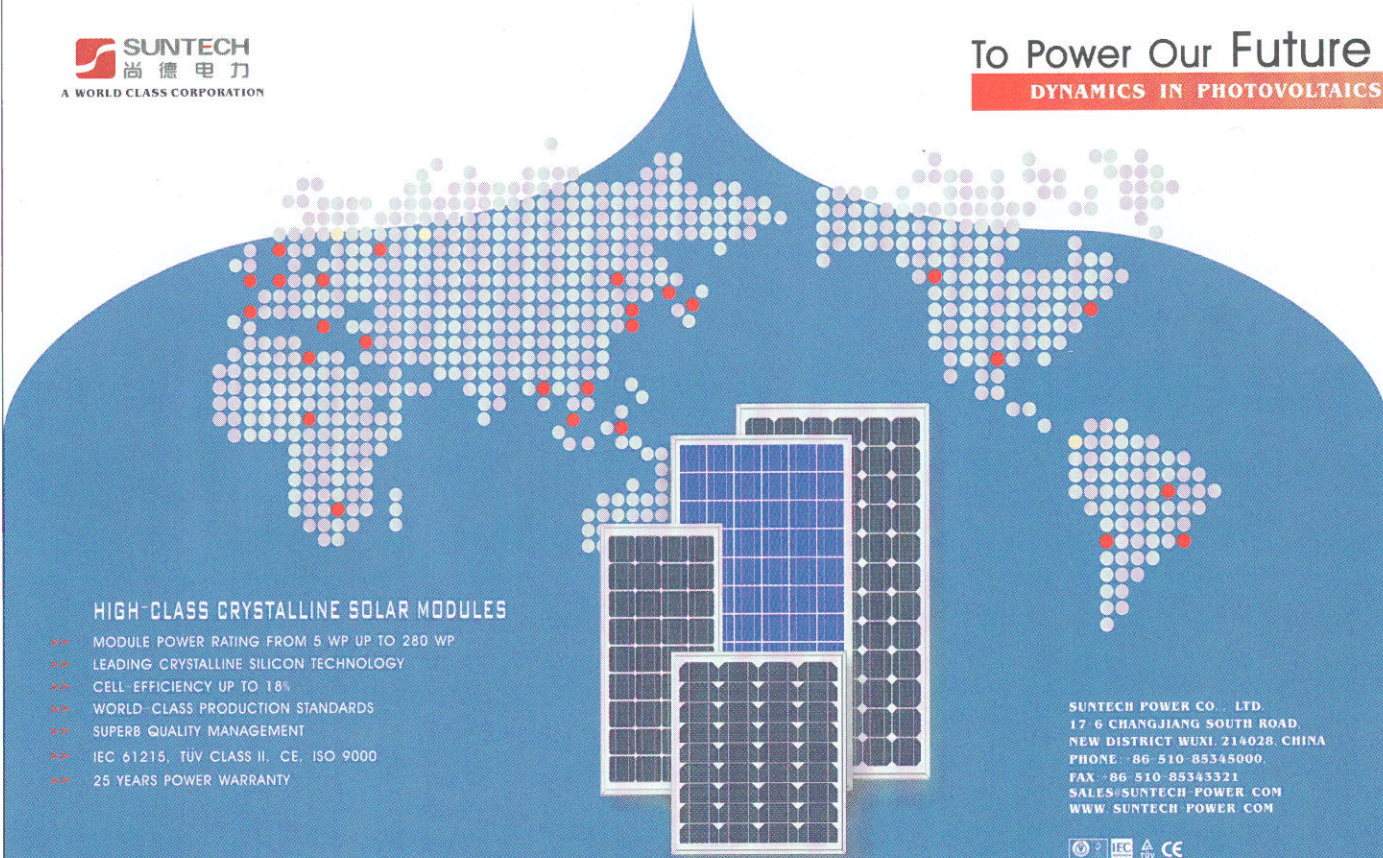
Jeanne M. Fox is president of the New Jersey Board of Public Utilities. A member of Acting Governor Richard J. Codey's cabinet, Fox has 25 years of experience working with national leaders on energy and environmental issues. She is one of this country's most established, respected and innovative leaders on energy policy.



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